THE BUTTERFLIES OF MISSISSIPPI— SUPPLEMENT NO. 31

BRYANT MATHER² AND KATHARINE MATHER

213 Mt. Salus Road, Clinton, Mississippi 39056

ABSTRACT. An annotated list of Mississippi butterflies is presented. This updated version is the fifth such list published. Six names additional to the previous lists have been included.

Of the five published lists of Mississippi butterflies, this is the first to use the names and arrangement of Miller and Brown (1981) as amended by them in Hodges (Editor) (1983). It includes six names not included in the fourth list (Mather & Mather, 1976). The growth rate has dropped to fewer than one per year as indicated in Table 1 below:

TABLE 1. Published lists of Mississippi butterflies, showing rate of increase in the addition of names previously unrecorded from the state.

List	Reference	Names	Time interval	Names added	Names added per year
1	Weed (1894)	53	_	_	_
2	Hutchins (1933)	73	39	20	0.5
3	M. & M. (1958)	122	25	49	1.9
4	M. & M. (1976)	144	18	22	1.2
5	M. & M. (1984)	150	8	6	0.75

In 1958 we expressed the opinion that the list would grow to include about 160 names. We also said, "there may be cases in which the Mississippi representatives of a given species represent more than one population; if so, we do not believe that we as yet have adequate data to support such a conclusion." Now we do. Our reasons for adding the six names are summarized below.

- 1. Papilio glaucus australis Maynard. In 1958, we noted that Professor R. L. Chermock had told us that the south Alabama glaucus population was referable to australis. We now have sufficient material from south Mississippi to come to the same conclusion about the population there.
- 2. Papilio troilus ilioneus J. E. Smith. In 1958, on the advice of Mr. Cyril F. dos Passos, we referred the Mississippi population to the subspecies. Before 1976, Mr. Harry K. Clench examined a long series and concluded that the correct referral was to the nominate subspecies. We

¹ Contribution No. 589, Bureau of Entomology, Division of Plant Industry, Florida Department of Agriculture and Consumer Services, Gainesville, Florida 32602.

² Research Associate, Florida State Collection of Arthropods.

therefore used that name in the 1976 list. We are now of the opinion that both subspecies are present. This view tends to be supported by the treatment of *texanus* Ehrmann, type locality Houston, Texas as a

synonym of ilioneus J. E. Smith, type locality Georgia.

3. Basilarchia archippus floridensis (Strecker). In 1958 we assigned the Mississippi population to B. a. watsoni (dos Passos) on the advice of Mr. dos Passos. We also noted that a specimen from Harrison Co. in the collection at the University of Missouri at Columbia had been determined as B. a. floridensis by Harold I. O'Byrne, while another, from Tishomingo Co., in the Los Angeles County Museum had been determined as B. a. archippus by J. A. Comstock. We now believe that both B. a. watsoni and B. a. floridensis populations are present in Mississippi.

4. Asterocampa alicia (W. H. Edwards). In 1958 we assigned the Mississippi population to A. celtis alicia, type locality New Orleans, La., on the advice of Mr. dos Passos, in spite of the fact it was recognized by him that the majority of the specimens in the sample he had seen resembled A. c. celtis, type locality Georgia. In 1975, Howe elevated alicia to species status based on unpublished work by W. J. Reinthal. If celtis and alicia are not conspecific, then the population in Mississippi nearest to New Orleans must be assigned to alicia and the remainder (superficially indistinguishable from celtis) assigned to it.

- 5. Asterocampa flora (W. H. Edwards). Although in 1958 our Mississippi sample included material resembling flora, type locality Palatka, Florida, we called the population A. c. clyton, type locality Georgia, on the advice of Mr. dos Passos, who expressed the view that the name flora should be restricted to the Florida population. Howe (1975) also elevated flora to species status, based on unpublished work by Reinthal and gave its distribution as "Southern Georgia, Florida, Gulf States, and Texas." We thus assign the material that resembles flora (coming from the southern third of Mississippi) to flora and that resembling clyton (coming from north of there) to clyton.
- 6. Cercyonis pegala alope (Fabricius). In 1958, only a few records were known, primarily from the southern part of the state. In 1976, it was clear that this material belonged to the subspecies named abbotti by F. M. Brown in 1969. In 1979, David Hess examined all available Mississippi material and determined a series from northern Mississippi (Tippah Co.) as C. p. alope, while those from the southern part of the state remained C. p. abbotti.

The revised check list, including the six additional names, using the names and sequence as given by Miller and Brown (1981) as amended by them in Hodges et al. (1983) follows:

1. 3870.	Epargyreus clarus clarus (Cramer)
2. 3886.	Urbanus proteus (Linnaeus)
3. 3889.	Urbanus dorantes dorantes (Stoll)
4. 3902.	Autochton cellus (Boisduval and Leconte)
5. 3904.	Achalarus lyciades (Geyer)
6. 3909.	Thorybes bathyllus (J. E. Smith)
7. 3910.	Thorybes pylades (Scudder)
8. 3913.	Thorybes confusis Bell
9. 3932.	Staphylus hayhurstii (W. H. Edwards)
10. 3946.	Erynnis brizo brizo (Boisduval and Leconte)
11. 3947.	Erynnis juvenalis juvenalis (Fabricius)
12. 3952.	Erynnis horatius (Scudder and Burgess)
13. 3954.	Erynnis martialis (Scudder)
14. 3956.	Erynnis zarucco (Lucas)
15. 3957.	Erynnis funeralis (Scudder and Burgess)
16. 3959.	Erynnis baptisiae (Forbes)
17. 3966.	Pyrgus communis (Grote)
18. 3968.	Pyrgus oileus (Linnaeus)
19. 3977.	Pholisora catullus (Fabricius)
20. 3993.	Nastra lherminier (Latreille)
21. 3995.	Nastra neamathla (Skinner and R. C. Williams)
22. 3998.	Lerema accius (J. E. Smith)
23. 4004.	Ancyloxypha numitor (Fabricius)
24. 4010.	Copaeodes minimus (W. H. Edwards)
25. 4013.	Hylephila phyleus (Drury)
26. 4027a.	Hesperia metea licinus (W. H. Edwards)
27. 4029.	Hesperia attalus attalus (W. H. Edwards)
28. 4041.	Polites themistocles (Latreille)
29. 4042.	Polites origenes origenes (Fabricius)
30. 4045.	Polites vibex vibex (Geyer)
31. 4046.	Wallengrenia otho (J. E. Smith)
32. 4047.	Wallengrenia egeremet (Scudder)
33. 4048.	Pompeius verna (W. H. Edwards)
34. 4049a.	Atalopedes campestris huron (W. H. Edwards)
35. 4050.	Atrytone arogos arogos (Boisduval and Leconte)
36. 4051.	Atrytone delaware delaware (W. H. Edwards)
37. 4052.	Problema byssus byssus (W. H. Edwards)
38. 4059.	Poanes hobomok (Harris)
39. 4060.	Poanes zabulon (Boisduval and Leconte)
40. 4063.	Poanes yehl (Skinner)
41. 4064a.	Poanes viator zizaniae Shapiro
42. 4070.	Euphyes arpa (Boisduval and Leconte)
43. 4071.	Euphyes pilatka (W. H. Edwards)
44. 4073.	Euphyes alabamae (Lindsey)
45. 4074.	Euphyes dukesi (Lindsey)
46. 4078a.	Euphyes ruricola metacomet (Harris)
47. 4080.	Atrytonopsis hianna hianna (Scudder)
48. 4084.	Atrytonopsis loammi (Whitney)
49. 4096.	Amblyscirtes hegon (Scudder)
50. 4099.	Amblyscirtes aesculapius (Fabricius)
51. 4100.	Amblyscirtes carolina (Skinner)
52. 4101.	Amblyscirtes reversa (F. M. Jones)
53. 4105.	Amblyscirtes vialis (W. H. Edwards)
54. 4107.	Amblyscirtes belli H. A. Freeman
55. 4108.	Amblyscirtes alternata (Grote and Robinson)
56. 4111.	Lerodea eufala (W. H. Edwards)
57. 4114.	Oligoria maculata (W. H. Edwards)
	(11, 11, 14, 14, 14, 14, 14, 14, 14, 14,

58	4115.	Calpodes ethlius (Stoll)
	4116.	Panoquina panoquin (Scudder)
	4119.	Panoquina ocola (W. H. Edwards)
	4145.	Megathymus yuccae yuccae (Boisduval and Leconte)
	4157.	Battus philenor philenor (Linnaeus)
63.	4159a.	Papilio polyxenes asterius Stoll
64.	4170.	Papilio cresphontes cresphontes Cramer
65.	4176.	Papilio glaucus glaucus Linnaeus
	4176b.	Papilio glaucus australis Maynard
	4181.	Papilio troilus troilus Linnaeus
	4181a.	Papilio troilus ilioneus J. E. Smith
	4182.	Papilio palamedes Drury
	4184.	Eurytides marcellus Cramer
	4193. 4197.	Pontia protodice (Boisduval and Leconte) Artogeia rapae (Linnaeus)
	4197. 4198a.	Ascia monuste phileta (Fabricius)
	4207.	Falcapica midea midea (Hübner)
	4209.	Colias philodice philodice Godart
	4210.	Colias eurytheme Boisduval
	4224.	Zerene cesonia (Stoll)
78.	4227a.	Anteos maerula lacordairei (Boisduval)
79.	4228a.	Phoebis sennae eubule (Linnaeus)
80.	4229.	Phoebis philea (Johansson)
	4237.	Eurema lisa Boisduval and Leconte
	4242.	Eurema nicippe (Cramer)
	4243.	Eurema daira (Godart)
	4246.	Eurema mexicanum (Boisduval)
	4248.	Nathalis iole Boisduval
	4249. 4256.	Feniseca tarquinius tarquinius (Fabricius)
	4256. 4268a.	Hyllolycaena hyllus (Cramer) Eumaeus atala florida Röber
	4270.	Atlides halesus (Action Atlides halesus (Cramer)
	4275a.	Harkenclenus titus mopsus (Hübner)
	4282a.	Satyrium calanus falacer (Godart)
	4284.	Satyrium kingi (Klots and Clench)
93.	4285a.	Satyrium liparops strigosum (Harris)
94.	4299.	Calycopis cecrops (Fabricius)
95.	4300.	Calycopis isobeon (Butler and Druce)
	4318.	Mitoura grynea grynea (Hübner)
	4322b.	Incisalia augustus croesioides (Scudder)
	4326c.	Incisalia henrici turneri Clench
	4328.	Incisalia niphon niphon (Hübner)
	4332.	Eurystrymon ontario ontario (W. H. Edwards)
	4335. 4336.	Parrhasius m-album (Boisduval and Leconte) Strymon melinus melinus Hübner
	4354a.	Brephidium isophthalma pseudofea (Morrison)
	4357.	Leptotes marina (Reakirt)
	4359a.	Hemiargus ceraunus antibubastus Hübner
	4360a.	Hemiargus isola alce (W. H. Edwards)
	4361.	Everes comyntas comyntas (Godart)
108.	4363.	Celastrina ladon ladon (Cramer)
	4386.	Calephelis virginiensis (Guérin-Méneville)
	4410.	Libytheana bachmanii bachmanii (Kirtland)
	4413a.	Agraulis vanillae nigrior Michener
	4418a.	Heliconius charitonius tuckeri W. P. Comstock and F. M. Brown
	4420. 4421.	Polygonia interrogationis (Fabricius) Polygonia comma (Harris)
114.	4421.	rouggonia comma (marris)

- 115. 4432. Nymphalis antiopa antiopa (Linnaeus)
- 116. 4434. Vanessa virginiensis (Drury)
- 117. 4435. Vanessa cardui (Linnaeus)
- 118. 4437a. Vanessa atalanta rubria (Fruhstorfer)
- 119. 4439. Hypolimnas misippus (Linnaeus)
- 120. 4440. Junonia coenia (Hübner)
- 121. 4443a. Anartia jatrophae guantanamo Munroe
- 122. 4447. Euptoieta claudia (Cramer)
- 123. 4449. Speyeria diana (Cramer)
- 124. 4450. Speyeria cybele cybele (Fabricius)
- 125. 4476a. Anthanassa texana seminole (Skinner)
- 126. 4480. Phyciodes phaon (W. H. Edwards)
- 127. 4481. Phyciodes tharos tharos (Drury)
- 128. 4489. Charidryas gorgone gorgone (Hübner)
- 129. 4490. Charidryas nycteis nycteis (Doubleday)
- 130. 4516a. Euphydryas phaeton ozarkae Masters
- 131. 4522b. Basilarchia arthemis astuanax (Fabricius)
- 132. 5423a. Basilarchia archippus floridensis (Strecker)
- 133. 5423b. Basilarchia archippus watsoni dos Passos
- 134. 4554. Anaea andria Scudder
- 135. 4557. Asterocampa celtis (Boisduval and Leconte)
- 136. 4562. Asterocampa alicia (W. H. Edwards)
- 137. 4562.1. Asterocampa clyton (Boisduval and Leconte)
- 138. 4563. Asterocampa flora (W. H. Edwards)
- 139. 4568b. Enodia portlandia missarkae J. R. Heitzman and dos Passos
- 140. 4568.1. Enodia anthedon anthedon A. H. Clark
- 141. 4568.2 Enodia creola (Skinner)
- 142. 4569. Satyrodes appalachia (R. Chermock)
- 143. 4573. Cyllopsis gemma gemma (Hübner)
- 144. 4575. Hermeuptychia sosybius (Fabricius) 145. 4576. Neonympha areolata areolata (J. E. Smith)
- 146. 4578. Megisto cymela cymela (Cramer)
- 147. 4587a. Cercyonis pegala abbotti F. M. Brown
- 148. 4587b. Cercyonis pegala alope (Fabricius)
- 149. 4614. Danaus plexippus (Linnaeus)
- 150. 4615a. Danaus gilippus berenice (Cramer)

LITERATURE CITED

HODGES, RONALD W. (Editor). 1983. Check list of the Lepidoptera of America north of Mexico. E. W. Classey Limited and The Wedge Entomological Research Foundation, London. 284 pp.

HOWE, W. H. 1975. The butterflies of North America. Doubleday & Co. Inc., Garden

City, N.Y. 633 pp.

- HUTCHINS, R. E. 1933. Annotated list of Mississippi Rhopalocera. Can. Entomol. 65: 210–213.
- MATHER, B. & K. MATHER. 1958. The butterflies of Mississippi. Tulane Stud. Zool. 6: 63–109.

- MILLER, L. D. & F. M. Brown. 1981. A catalogue/checklist of the butterflies of America north of Mexico. Lepid. Soc. Memoir No. 2. 280 pp.
- Weed, H. E. 1894. A preliminary list of the butterflies of northeastern Mississippi. Psyche 7:129-131.